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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/760,592	01/16/2001	Hisashi Kawabata	P/2635-64	4297

7590 08/18/2005

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EXAMINER

CHANG, EDITH M

ART UNIT	PAPER NUMBER
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2637

DATE MAILED: 08/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.		Applicant(s)	
	09/760,592		KAWABATA, HISASHI	
	Examiner		Art Unit	
	Edith M. Chang		2637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4, 6-8 and 13-16 is/are allowed.
- 6) ☒ Claim(s) 5, 10, 17-20 and 22 is/are rejected.
- 7) ☒ Claim(s) 9, 11, 12 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The previous final rejection is withdrawn; the new 35 U.S.C. 112 rejections are listed in the following.

Specification

2. The disclosure is objected to because of the following informalities:

On page 24, lines 3-4, "The first despreading circuit 5c" should be "The third despreading circuit 5c".

Appropriate correction is required.

Claim Objections

3. Claims 5, 9, 11-12, 17 and 21-22 are objected to because of the following informalities:

Claim 5, line 9: "said a third" should be "said third".

Claim 9, line 10: "target phases;" should be "target phases; and".

Claim 11, line 5: "a quasi-coherent" should be "an added quasi-coherent" and line 8: "said quasi-coherent" should be "said added quasi-coherent" to comply with the disclosure of Fig.2 and the description in the specification that a ranking circuit (76 Fig.2) storing raked phases based on the added quasi-coherent signal.

line 10: "plurality of" should be "at least one".

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Claim 12, line 3: "said quasi-coherent" should be "a quasi-coherent"; line 4: "an added" should be "said added"; line 6: "plurality of" should be "at least one".

Claim 17, lines 6 & 10: "said a" should be "said".

Claim 21, line 4: "and a" should be "and an added"; line 7: "ranked phases said phases ranked based" should be "ranked phases based"; line 8: "said quasi-coherent" should be "said added quasi-coherent"; line 9: "setting phase" should be "setting a phase", "plurality of" should be "at least one".

Claim 22, line 3: "said quasi-coherent" should be "a quasi-coherent"; line 4: "an added" should be "said added"; line 7: "a plurality of" should be "said at least one".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 5, 10, 17, 20 and 22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 5, lines 5-6: "a despreading circuit (5a Fig.2) despreading said first quasi-coherent signal (SS1 Fig.2) to produce a despread signal *using a third spreading code sequence having said despreading phase*" does not comply to the disclosure of the drawings and the description in the specification, wherein "a third spreading code sequence" is generated from a third spreading code generator (2c Fig.2, page 23 specification) or other code generator having said despreading phase based on the first correlation generated by the first correlator (2a Fig.2).

Since claim 5 inheres limitations from claim 1, wherein the synchronization establishing and tracking circuit disclosed in Fig.2, comprises a first spreading code generator (3a) generating a first spreading code sequence and a second spreading code generator (3b) generating a second spreading code sequence, and a phase determining circuit (7 Fig.2) determining a first phase of said first spreading code sequence.

However in claim 5, the synchronization establishing and tracking circuit further comprises a maximum correlation phase determining circuit (4a Fig.2), a despreading circuit (5a Fig.2) despreading the first quasi-coherent signal (SS1) using a third spreading code sequence having the despreading phase determined by the maximum correlation phase determining circuit. The "using a third spreading code sequence having the despreading phase" of the first quasi-coherent signal (SS1) does not clearly specify the relation to the claim 1.

line 13: "*a despreading spreading code sequence*" does not clearly indicate that it is " the third spreading code sequence" used to despread the first quasi-coherent signal

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(recited in line 6 of this claim) or another type of spreading code sequence (described in the specification) to despread the first quasi-coherent signal.

Claims 10, 17 & 20 are rejected as the same reason of claim 5. The first despread circuit despreding the first quasi-coherent signal using a third spreading code sequence having the first despreding phase and/or the second despread circuit despreding the second quasi-coherent signal using a fourth spreading code sequence having the second despreding phase do not comply to the subject matter disclosed in the drawing (Fig.2) and described in the specification (pages 20-27).

Claim 22 depends on the rejected claim 20.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 18-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 18, line 4: "an added semi-synchronous signal" is not clear which or what signal in the disclosure of the drawings or the description of the specification.

Claim 19, line 6: "ranked phases" does not clearly indicate that they are the target phases determined base on added quasi-coherent signal recited in line 3 or not. The setting action recited in line 5 does not cooperate to the action of determining recited in line 3 of this claim.

Allowable Subject Matter

7. Claims 1-4, 6-8 and 13-16 are allowed.
8. Claims 9, 11-12 and 21 would be allowable if rewritten or amended to overcome the objection(s) set forth in this Office action.
9. Claims 18 and 19 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.
10. The following is a statement of reasons for the indication of allowable subject matter:

Claims are allowable over prior art of record because the prior art of record does not teach or suggest, alone or in a combination, among other things, at least a synchronization establishing and tracking circuit and its method ms a whole, the combination of elements and features as claimed, which includes a phase determining circuit determining a first phase of the first spreading code sequence based on an added quasi-coherent signal which is the first and second quasi-coherent signals added together. The first spreading code sequence is correlated with the first quasi-coherent signal, and the second spreading code sequence is correlated with the second quasi-coherent signal as cited in the claims.

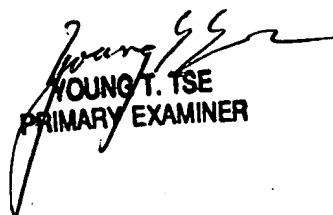
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edith M. Chang whose telephone number is 571-272-3041. The examiner can normally be reached on M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay K. Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Edith Chang
August 16, 2005


YOUNG T. TSE
PRIMARY EXAMINER